



**Alberta Heritage Foundation
for Medical Research**

Health Technology Assessment Unit

Report of Activities

for

2001 - 2002

HTA Annual Reports: 2001-2002

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DIRECTOR'S MESSAGE

The field of health technology assessment continues to grow in importance for the Alberta health care system. This fact was highlighted in two recent reviews of the state of the health care systems, one produced in Alberta (Mazankowski Report) and the second at the national level (Kirby Report).

The Report of the Premier's Advisory Council on Health released in December 2001 states:

In addition to research focused on new treatments and cures, research on the impact of different ways of delivering health services on improving the quality of care should be expanded. There is also considerable challenge in researching and assessing the impact of new technologies. Before decisions are made on whether to purchase new equipment or change the way people are treated, it is critical to have independent technology assessments. The AFHMR does technology assessment and has the capability of creating a centre of expertise in this area for the prairie provinces¹.

The Standing Senate Committee on Social Affairs, Science and Technology released volume five of its report in April 2002, which states:

Overall, the Committee agrees with witnesses that health care technology assessment is a critical activity and that more HTA needs to be undertaken when considering the introduction of a new technology or the replacement of existing medical equipment. WE also agree that, given the rapid advancement in health care technology, the capacity to disseminate the outcomes of HTA activities should be enhanced. It is the view of the Committee that the federal government, through its role in financing innovative health research, should devote more funding to the assessment of new and existing health care technologies. Therefore the Committee recommends:

That the Federal Government increase the funding it provides to CCOHTA and other HTA agencies.

That this additional funding be used to strengthen HTA capacity in Canada as well as to improve the dissemination and promotion of HTA findings to health care providers and managers.²

¹Premier's Advisory Council on Health, "A Framework for Reform", Edmonton, December 2001

²Standing Senate Committee on Social Affairs, Science and Technology, "The Health of Canadians – The Federal Role", Ottawa, April 2002.

The synthesis of relevant, dependable and timely evidence to inform policy or decisions in health care delivery is being strongly enforced from many quarters. Health reform, accreditation standards and the regionalization of health care systems across Canada have placed new challenges before health authorities of bringing evidence to decision and policy making.

This report is a review of the sixth year of operation of the Health Technology Assessment Unit. The activities of the Unit are prescribed under the provisions of the Health Research Collaboration Agreement between the Alberta Heritage Foundation for Medical Research and Alberta Health and Wellness. As in previous years, health technology assessments and other reports were prepared in response to requests from a variety of sources. The focus was on assessment of technologies which are of relevance to the Alberta health care system. A new initiative to work with health authorities to bring health technology assessment evidence to decision and policy making at the local level went into its second year of activity.

A new development in this year was to commission an external consultant to study the impact of the assessment reports and other products of the health technology assessment unit. The report is available to the public in hard copy and/or downloadable from the AHFMR web at www/ahfmr.ab.ca/hta/hta-publications/infopapers/hta_products.pdf. The report responds to the challenge of providing outcomes oriented evidence of public accountability for health technology assessment. The report is also being used to inform the unit's continuing improvement activities and work plan for the following years.

It is my pleasure to submit the annual review of activities for the 2001-2002 fiscal year.

Health technologies

....are the interventions and applied knowledge used by health care practitioners and systems throughout the entire spectrum of health care: primary prevention, early detection of disease and of risk factors, diagnosis, treatment, rehabilitation and palliative care. Included in health technologies are drugs, devices, medical and surgical procedures, and the organizational, administrative, and support systems in which health care is delivered.

Health technology assessment (HTA)

....is the process of evaluating medical technologies (devices, equipment, procedures and drugs) and their use. HTA researchers collect, synthesize and critically evaluate the available research on medical technologies. Based on an interdisciplinary, an assessment can encompass analyses of safety, efficacy, effectiveness, quality of life and patient use. Other important factors such as economic, ethical, and social implications and other effects which may be unintended, indirect or delayed, may also be considered.³

Its primary purpose is to provide objective information to support health care decisions and policy making at the local, regional, national, and international levels.

³Canadian Coordinating Office for Health Technology Assessment, Brief to the Standing Senate Committee on Social Affairs, Science and Technology, 29 March 2001.

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Health Technology Assessment Reports - Series A: Details results often with comprehensive literature and data sources, identifying study design, assessing the quality and level of evidence against a set of criteria. Common criteria for Series A assessments are that they can take six months to one year to complete, attempt to cover, depending on the topic, at least 10 years of literature from comprehensive English Language sources, and examine relevant data bases. The approach is generally to conduct systematic reviews assessing the methodological quality of the studies. The reports undergo an external review process. The audience for the reports are a general distribution including selected experts and stakeholders.

Health Technology Assessment Reports - Series B: Series B reports are shorter publications covering more specific issues or health care technologies. The common criteria for Series B assessments are that they can take anywhere from 3 to 6 months to complete, examine the English language literature for a minimum of 10 years, if appropriate, and utilize data sources such as administrative data bases if they are readily available. The approach is a systematic review but the internal validity of the studies is not assessed. The reports are externally reviewed. The audience is general distribution plus selected experts and stakeholders.

Technical brief reports intended to provide short term advice in response to urgent requests related to policy or administrative decisions. These publications are not externally reviewed. Common criteria for Technicals are that they can take 2 to 3 months to complete, will cover at minimum 3 years of literature (depending on the topic), and will pull the best available evidence (Cochrane, HTA databases, MEDLINE, Embase, and any relevant databases, as well as the internet). The approach is generally a limited analysed controlled trials and critical reviews. General distribution is to the Alberta health care community as well as relevant interested stakeholders and experts. Technicals are not externally reviewed but they are reviewed by at least one external subject expert.

INTRODUCTION

This report provides a comprehensive description of the products created and activities undertaken by the Health Technology Assessment Unit in the 2001-2002 fiscal year. The type of projects undertaken on behalf of our clients, the resulting publications, the researchers, their collaborators, external reviewers, and resulting dissemination activities are all documented.

Products from the Unit consist of:

Health Technology Assessment Reports – Series A: Detailed publications, with comprehensive literature and data review, identifying study design, assessing the quality and level of evidence against a set of criteria. Common criteria for Series A assessments are that they can take six months to one year to complete, attempt to cover, depending on the topic, at least 10 years of literature from comprehensive English Language sources, and examine relevant data bases. The approach is generally to conduct systematic reviews assessing the methodological quality of the studies. The reports undergo an external review process. The audience for the reports are a general distribution including selected experts and stakeholders.

Health Technology Assessment Reports – Series B: Series B reports are shorter publications covering more specific issues on health care technologies. The common criteria for Series B assessments are: that they can take anywhere from 3 to 6 months to complete, examine the English language literature for a minimum of 10 years, if appropriate, and utilize data sources such as administrative data bases if they are readily available. The approach is a systematic review but the internal validity of the studies is not assessed. The reports are externally reviewed. The audience is general distribution plus selected experts and stakeholders.

Technotes: Brief reports intended to provide short-term advice in response to urgent requests related to policy or administrative decisions. These publications are not externally reviewed. Common criteria for Technotes are: that they can take 2 to 3 months to complete, will cover at minimum 5 years of literature (depending on the topic), and will pull the best available evidence: Cochrane, HTA databases, MEDLINE, EMBASE, and any relevant databases, as well as the internet. The approach is generally a limited analyses of controlled trials and critical reviews. General distribution is to the Alberta health care community as well as selected interested stakeholders and experts. Technotes are not externally reviewed but they are reviewed by at least one external 'content expert'.

Information Papers: Information papers are written on specific health technology topics, but do not include an assessment component. Common criteria for Information Papers are that the timeline for production can vary with the scope and complexity of the topic, the literature searches tend to vary by the topic, and the approach may focus on methodological, policy or administrative issues rather than the published evidence. The information papers are for general distribution as well as selected stakeholders.

Health Technology Initiatives: Health technology initiatives are papers prepared with a view to assisting policy and decision makers use health technology assessments more effectively. These aids to decision and policy making can take anywhere from six months to two years to complete from inception to validation. The method and search strategy for these are situational and can often move outside of the traditional fields of health sciences.

Collaborative or Joint Reports: Papers/reports are undertaken under the auspices of the International Network of Agencies for Health Technology Assessment (INAHTA) or in collaboration with other agencies such as the Institute of Health Economics.

Newsletters (Tech-Wise): Newsletters describing the products and activities of the Unit.

Information Requests: The Unit continued to receive a variety of requests for information (see Appendix D). Provision of information on health technologies remains an important part of the Unit's activities. A feature this year was the complexity of some requests, which required a significant assessment effort. Details from some of these were included in the Newsletter.

Sources of all Requests

Sources of requests for the assessments undertaken in 2001/02 are shown in Table 1. Alberta Health and Wellness and Health Authorities continue to be important clients however the requests from regional health authorities have more than doubled since the previous year.

Table 1: Sources of requests for information and assessments completed in 2001-2002

Source of request	Assessments	Requests	Total
Alberta Health & Wellness	9	12	21
Regional Health Authorities	5	40	45
Alberta Mental Health Board	2	-	2
Alberta Government Agencies	-	1	1
Manitoba Health	-	2	2
Saskatchewan Health	-	2	2
AHFMR In-house	6	-	6
Health Care Professionals	-	5	5
Prince Edward Island Health	-	1	1
Individuals	-	15	15
HTA or HSR agencies	-	6	6
Other	-	7	7
Total	22	91	113

UNIT STAFF

At March 2002, permanent staff at the Unit were Mr. Don Juzwishin, Ms. Christa Harstall, Ms. Paula Corabian, Dr. Bing Guo, and Ms. Wendy McIndoo. Dr. David Hailey continued to support the Unit as a senior scientific advisor. Ms. Liza Chan provided library and search assistance with the support of Ms. Leigh-Ann Topfer. Under a special arrangement with CCOHTA Ms. Topfer joined the HTA unit providing information specialist support for a half day a week while dedicating the remainder to CCOHTA.

Ms. Melina Dharma-Wardene undertook a part time appointment as research assistant from May 2001 to September 2001. During the year Ms. Samantha Bowker worked as a research assistant from November 2000 to April 2001.

Dr. Laurie Brooks, an Alberta physician in private practice with an interest in complementary health care, undertook the Health Technology Assessment professional development position from November 2000 until August 2001. This position provides an opportunity for health care professionals who wish to learn the methods of HTA. During her time with the unit Dr. Brooks undertook several TechNotes and completed an overview of acupuncture in Alberta.

In October 2001 we welcomed Ms. Maria Ospina for a six-month placement in the HTA professional development position. Ms. Ospina is taking time away from her appointment as Assistant Professor with the Clinical Epidemiological and Biostatistic Unit, Universidad Javeriana, Bogota, Columbia and from finishing her M.Sc. in Clinical Epidemiology and Social Sciences at Escola Paulista de Medicina, Sao Paulo, Brazil. During her time with the AHFMR she will be an important part of a multidisciplinary team conducting a project in the area of non-malignant chronic pain management.

Other persons who supported projects involving the Unit are listed in Appendix A.

CONTACT AND COLLABORATION WITH OTHER ORGANIZATIONS

The Canadian Health Technology Assessment Community

The HTA unit continues to support and facilitate linkages with the Canadian Coordinating Office for Health Technology Assessment [CCOHTA] and other provincial HTA agencies. Mr. Don Juzwishin and Ms. Christa Harstall attended a meeting of the Canadian Health Technology Assessment Network (CHTAN) in Vancouver in April 2001. As well, Ms. Harstall attended the last meeting of CHTAN in September 2001 in Montreal. A new organization, Canadian Health Evaluation Forum (CHEF), was proposed to replace CHTAN. The objectives of CHEF will be:

- 1) to contribute to the co-ordination of efforts in evaluation and dissemination across Canada – specifically to reduce duplication of effort and build on initiatives and skills/expertise developed elsewhere;
- 2) to provide a forum for promoting the role of evaluation in policy and practice at a national and international level, and
- 3) to support the training and development of research staff through workshops and other educational activities organized by members in Canada to contribute to the maintenance and development of evaluation programmes of high international standards.

In the spring of 2001 CCOHTA began its outreach workshop initiative to help raise awareness about HTA across Canada. Mr. Don Juzwishin was invited to participate in workshops in Newfoundland on May 5 and in Prince Edward Island on May 17, 2002. Mr. Juzwishin shared Alberta's experience with bringing health technology assessment to the policy and decision making tables. The objectives of the workshops are to:

- provide an update of CCOHTA reports and other health technology assessments (HTA) at the health authority and hospital levels, and
- facilitate a more representative and inclusive priority-setting process for projects undertaken.

These interactive workshops will help CCOHTA to raise awareness about HTA and invite feedback as to how we can make our products more appropriate to our intended audiences.

In February 2002 discussions between the CCOHTA, AHFMR and Alberta Health and Wellness were initiated to explore the possibility of holding an outreach workshop on health technology assessment in Alberta during 2002. It was agreed that the workshop would be held on May 23rd, 2002 in Edmonton. It is designed to benefit health care

administrators and managers, policy makers, health authorities and practitioners in understanding HTA and how it supports evidence based health care management.

In February 2002 Don Juzwishin was invited to Montreal to conduct a two-day workshop for the Agence d'Évaluation des Technologies et des Modes d'Intervention en Santé (AETMIS). The first day of the workshop was for the staff at AETMIS and described AHFMR experience with the relationship between the HTA unit and the regional health boards in Alberta. The second day of the workshop was delivered at the Hôpital Notre-Dame to the health technology assessment committee of the amalgamated hospitals and medical school at the University of Montreal (SICHUM). The SICHUM is an independent corporation whose mission is to plan, to organize and to build, on a single site, a new state-of-the-art complex for the Université de Montréal Health Center. The workshop explored the challenges and opportunities of implementing HTA findings in a university hospital setting.

Calgary Health Region and University of Calgary

In October 2001 an agreement between Calgary Health Region, University of Calgary, and AHFMR to establish a Health Technology Implementation Unit in Calgary (CaHTIU) was ratified. The objectives of the collaboration with the Calgary Health Region and University of Calgary are:

- 1) to build capacity in Alberta for health technology assessment;
- 2) to facilitate the use of health technology assessment in the Calgary Health Region;
- 3) to encourage linkages and synergy between the practise, research and education in health technology assessment in Calgary;
- 4) to support SEARCH activities in the health regions; and
- 5) to provide advice and collaborate on projects with HTA at AHFMR.

After the first six months of service the following achievements are noted:

- establishment of a working structure for the CaHTIU;
- establishment of research collaborations and directions within the U of C Departments of Community Health Sciences, Medicine, and Economics;
- academic activities including teaching, student supervision, and departmental activities;
- publication of HTA related research;
- internal and external communication and networking to promote "visibility" of the CaHTIU in the HTA community and the CHR;

- formation of an HTA “Working Group” structure and implementation of an initial HTA and health technology implementation project (hip arthroplasty system operations) as a “test case” for the structure;
- initiation of a Health Technology Advisory Group, intended to prioritize HTAs for the CHR; and
- application for external funding to expand local HTA capacity.

Priority setting for resource allocation in health regions is an ongoing challenge. The AHFMR and the University of Calgary, Centre of Health and Policy Studies, sponsored a conference on September 27, 2001 exploring the opportunity of using program budgeting and marginal analysis (PBMA) to assist with priority setting. With the leadership of Mr. Craig Mitton and Dr. Cam Donaldson, a summary of the conference outlining a description of PBMA, its application and adaptability, and the feedback from the breakout sessions on how PBMA could be more effectively disseminated to and applied in the health regions was produced. The conference summary includes an approach to how regions might apply the tool in their setting.

Capital Health Region

The Capital Health Region Executive Committee introduced a technology impact assessment process as a pilot project in April 2001. This pilot served to trial a process within Capital Health to advance proposals from physicians and staff for the introduction of new technology, procedures, or standards of care. Two initiatives were identified for the initial pilot:

- 1) the use of Vacuum Assisted Closure (VAC) therapy in wound management and
- 2) the use of the Tension-Free Vaginal Tape (TVT) procedure for surgical intervention in female stress incontinence.

The Technology Impact Assessment process consists of completion of a structured template (based on the checklist developed by AHFMR) designed to document information required to support the decision-making related to a technology initiative. The process is coordinated through the Regional Coordinating Committee and includes consultation with the Regional Program Councils related to health technology assessment and advancing standards of care recommendations.

The Executive Committee of Capital Health Region identified the following factors to be considered during the pilot:

- Functionality of the process and documentation template usefulness & timeliness of information, staff involvement, and process management.

- Nature and volume of work associated with completing the template and facilitating the process.
- Feedback from pilot participants and other stakeholders on the suitability of the process in support of regional decision-making.
- Regional implications of introducing a structured process such as this into the regional decision-making process.

The pilot was completed in September 2001 and the results were reported. The feedback from the pilots was mixed. The experience of drawing on the evidence to inform the decisions was that it was difficult and time consuming but valuable and necessary. Several recommendations for improving the process in the future were made. Capital Health will continue to collaborate with AHFMR to refine the processes developed.

University of Alberta and the Department of Public Health Sciences

The HTA unit continued to collaborate with the University of Alberta Public Health Sciences program to build capacity in Alberta for Health Technology Assessment through Dr. Hailey's teaching of PHS 709, jointly, with Dr. Dev Menon, IHE.

In his role as faculty member in Public Health Sciences partially funded by AHFMR Dr. Hailey provided support and supervision of graduate students undertaking their projects in health technology assessment. Dr. Hailey co-supervised Dr. Brian Louie in his Masters degree. His thesis *"A randomized controlled trial and cost effectiveness analysis of parenteral nutrition and enteral nutrition in severe pancreatitis: A model for health technology assessment"* was defended in March 2001. Dr. Hailey also supported Dr Sandor Demeter in his work towards a Masters degree on costs and outcomes related to the staging and management of primary bronchogenic lung cancer in Alberta.

Dr. Hailey provided support to a project led by Dr. Cumming under the auspices of IHE and has included input by Dr. Ping Hu as a PHS student. A student in PHS 709, Ms Pauline Tomlin, prepared a course paper on a telehealth topic suggested by Capital Health.

Dr. Hailey also undertook several faculty capacity building initiatives for HTA research in Public Health Sciences. Two examples of this work have been collaborating with Dr Kent Rondeau in developing approaches to appraising the performance of HTA organizations. Preliminary work on this topic was presented in a poster which won a prize at the June 2001 ISTAHC meeting. Planning and initiating collaborative activities with Dr. Arto Ohinmaa on assessment of telehealth. A major paper on a systematic review of telemedicine assessments, was published in an international journal and further related work is in progress.

Dr. Hailey continued collaboration work with Dr. Douglas Urness and other staff of the Alberta Mental Health Board. This has led to publication of two papers in an international journal. A further paper, dealing with a benchmarking study has been accepted for publication. Dr. Hailey provided a mentoring role in regard to the HTA initiative in Calgary, which commenced this year, and there has been frequent contact with Mr. Robert Lee, the Director of the unit. Contact has continued with Professor Penny Jennett and her colleagues at the Health Telematics Unit, University of Calgary, most recently through presentation of a seminar that was made available on video link to a wider provincial audience.

In respect to future developments, the PHS 709 course has now been offered for five years and the institutionalization of a health technology assessment stream in PHS is a high priority. It has successfully acted as a focus for the emerging involvement of Public Health Sciences in HTA, now taken forward by addition of a further course, on HTA and Policy, and the proposal for a Masters degree with a concentration in HTA. Over the five years the course has been popular with its participants, many of whom have been involved subsequently in HTA. Beyond such direct involvement the course has contributed to wider understanding of the purpose and nature of HTA. One indicator of the contribution of the course to the practice of HTA is its input to the development of those who have worked for the AHFMR HTA program.

The synergy between the HTA unit and the technology assessment stream in Public Health Sciences has made a highly significant contribution to the development of HTA in the province and we hope to build on this synergy in the future.

AHFMR Health Technology Assessment in-house seminars

During the year we hosted a number of visitors from outside the country who were interested in learning about health technology assessment in Alberta and Canada. The visitors were often gracious enough to deliver seminars with invitations to the broader community of health sciences researchers, health care policymakers and decision-makers in Alberta.

Dr Ray Kirk, Director of New Zealand Health Technology Assessment - The Clearing House for Health Outcomes and Health Technology Assessment Department of Public Health & General Practice Christchurch School of Medicine, University of Otago, Christchurch, New Zealand, delivered a presentation on *HTA down under: current issues and future challenges* in May 2001.

Dr. Karen Facey, Director of the Health Technology Board for Scotland delivered a presentation in July 2001 at the Institute of Health Economics on *Influencing Decision Making in Scotland*.

Dr. Harold Wallach, the Klinikum der Universität Institut für Umweltmedizin und Krankenhaushygiene in Freiburg, Germany, delivered a seminar to AHFMR and IHE in September 2001 entitled *Health Technology Assessment and the placebo effect*.

In October of 2001 Dr. Michael Kachieng'a of the University of Pretoria gave a presentation entitled '*HTA in Sub-Saharan Africa: Lessons for HTA and Canada*'.

Dr. Ann Scott, Research and Administrative Manager, Australian Safety and Efficacy Register of New Interventional Procedures-Surgical (ASERNIP-S), prepared and presented a talk on *10 Things that HTA can do to Improve Decision Making in Health Policy: an Australian Perspective* held at AHFMR in January 2002.

THE INTERNATIONAL HEALTH TECHNOLOGY ASSESSMENT COMMUNITY

The HTA unit continued to benefit from and contribute to the international health technology assessment community. Reports and advice from other agencies were sought and freely offered. In pursuit of the goal to seek best international practices in HTA the AHFMR HTA Unit provided leadership in the development of a checklist for the International Network of Agencies for Health Technology Assessment (INAHTA) for establishing a beginning standard for health technology assessments. INAHTA agreed to the development of the checklist, following discussion by its Working Group on HTA methodology, accreditation, and conflict of interest.

David Hailey prepared the checklist. Suggestions and comments on the first draft were provided by Rod Taylor (NICE, United Kingdom), Norman Waugh and John Gabbay (NCCHTA, United Kingdom). The draft checklist was discussed by the Working Group during the 2001 Annual Meeting and revised in the light of suggestions made by members (Eduardo Briones (AETSA, Spain), Carlos Cano (CMS, USA), Christa Harstall (AHFMR, Canada), Jetty Hoeksema (ZonMw, Netherlands), Jos Kleijnen (NHSCR, United Kingdom), Helga Sigmund (DACEHTA, Denmark), Menno van Leeuwen (GR, Netherlands), Claire Packer (NHSC, United Kingdom), Miriam Siebzehner (ICTAHC, Israel) and Bertrand Xerri (ANAES, France). The revised draft was circulated to INAHTA members and finalized following comments by Vicki Foerster (CCOHTA, Canada) and Nathalie Jakobi Rodrigues (CEDIT, France). The checklist is available on the INAHTA website and has been translated into French and Spanish.

ASSESSMENTS UNDERTAKEN

Health Technology Assessment – Series A

Efficacy of suicide prevention programs for children and youth

The Alberta Mental Health Board (AMHB) requested a systematic review of the published research on the efficacy/effectiveness of suicide prevention programs for children and youth.

This report aimed to update the evidence on the effectiveness of suicide prevention programs and to analyze the elements related to the different prevention programs. The intent was to provide guidance for decision makers regarding program planning and implementation strategies, to inform program evaluations and to direct future research.

The rationale for introducing curriculum-based education programs is that the majority of suicidal youth come to the attention of their peers rather than adults. Ten primary studies and two systematic reviews were identified that evaluated school-based suicide prevention programs. No Canadian studies have been published since 1991 and hence the generalization of the research is at question.

An assessment tool developed, pre-tested and modified in other Canadian reviews was used to critically appraise the quality of the published studies. Few research studies were rated high for methodological quality in terms of their study design, control of confounding factors and testing of validity and reliability of the outcome measurement tools.

Most of the studies focused on the general student population, while a few studies first categorized students as 'at-risk' or 'in need' before the intervention. Six out of 10 studies were rated as moderate to strong in relation to their methodological quality. Two out of these six studies using similar approaches for risk stratification and delivering intervention programs with similar objectives, showed consistent and encouraging evidence on the effects (for example, decreases in depression, hopelessness, stress, anxiety and anger) of their programs.

The suicide prevention programs varied considerably in content, frequency, duration, and delivery making it difficult to draw general conclusions across studies. The programs' objectives varied as well and even comparison of programs with similar objectives was not possible because of the dissimilarities within the programs themselves.

Most often the significant finding of change due to the prevention programs were within the groups (pre/post changes) rather than significant differences between the control and experimental groups. Thus, the overall findings of this review suggest that there is insufficient evidence to either support or not to support curriculum-based suicide prevention programs in schools.

The report suggests that there is a good opportunity for the AMHB to sponsor and design a good quality Canadian study. There are various school-based programs currently being offered throughout this province. As a first step the report recommends that it is necessary to evaluate the effectiveness of these programs and then proceed with research to address the questions of highest priority.

Computerized interpretation of electrocardiograms for routine examinations

This report arose from a request from the Provincial Health Authorities in Alberta (PHAA). The PHAA was interested in the evidence on the diagnostic accuracy and reliability of using computerized interpretation of resting electrocardiograms (ECGs) performed in ambulatory settings to detect normal heart activity in asymptomatic adults during their routine examinations.

The research reviewed suggests that the role of computerized interpretation of resting ECG in primary care has future potential. However, no clinical studies conducted to determine whether this technology can be considered an accurate and reliable automated laboratory test for screening normal ECGs in asymptomatic adults during routine clinical examination were located.

Conclusive answers could not be found on the diagnostic accuracy and reliability of using computerized interpretation of resting ECG for this indication. The question on whether it can replace interpretation by a skilled professional in an ambulatory clinical setting has yet to be answered.

The available evidence suggests that the computer programs with the best performance may be as accurate in diagnosing normal ECGs as the human reader. However, they should be used with an awareness of the risk of false positive and false negative findings.

Those considering use of computerized ECG interpretation for this indication should be aware that:

- It is only one of the tests used to detect or exclude possible heart conditions and is of limited value as a stand-alone screening tool in an apparently healthy population.

- Whether the use of computerized ECG interpretation actually increases physician's accuracy in ECG interpretation, saves physician time, improves quality of patient care and leads to a reduction in the costs have yet to be determined.
- There are different applications of the computer programs available on the market that apply different approaches to this diagnostic classification of ECGs and use different terminology.

Health Technology Initiatives

AHFMR Screening Procedure for Use when Considering the Implementation of Health Technology

The 'screening procedure' or 'checklist' as it is commonly called was developed in response to a request from the Council of Chief Executive Officers of the health regions to help guide them through an applied HTA process and help them decide on suitable health technologies for their region. The checklist serves to structure the manner by which proposals from physicians and staffs advance the introduction of new technology, procedures, or standards of care. Staff from the health regions and Alberta Health and Wellness were invited to participate in the development of the checklist at workshops held in Red Deer, Grande Prairie and Lethbridge. A draft of the checklist was circulated to all health regions in April 2001 with the expectation that it would be trialed in the local settings. Representatives of the health regions and Alberta Health and Wellness were brought together in March 2002 for a workshop to validate the contents of the checklist and to make improvements. The final version of the checklist will be circulated to the health regions in April 2002.

Priority setting in health care: from research to practice

Priority setting in health care: from research to practice is an overview of a workshop on priority setting held in Calgary in September 2001. The publication provides an introduction and details to program budgeting marginal analysis (PBMA). The conference was interactive and facilitated small group sessions where feedback was solicited on the;

- Acceptability and adaptability of PBMA;
- Implications and action arising from the application of PBMA;
- Barriers and facilitators of PBMA; and
- Worthwhileness of PBMA.

The results of the sessions were documented and used to inform the development of a generic approach to priority setting for health regions.

Information Papers

Nursing Skill Mix and Health Care Outcomes

This report was prepared following a request from the Calgary Health Region (CHR) and Alberta Health and Wellness, who were interested in obtaining advice on the appropriate skill mix/staff mix of Registered Nurses (RNs) and Licensed Practical Nurses (LPNs). In summary the intentions were to review the empirical research that examined the relationship between skill mix of RNs or Registered Psychiatric Nurses (RPNs) and LPNs and patient/client outcomes and comment on the implications of the research findings for CHR.

The report suggests that there is at present rather little in the literature to assist the CHR in their decisions on how to manage expected changes to the nursing workforce. Those studies that are available tend to have only marginal relevance to practical issues that will be faced by Regional Health Authorities (RHAs) and some have methodological limitations. The reviewed studies can do little more than provide general guidance.

The report found that there is a need to recognize the importance of context and practice settings and also the influence of non-nursing staff on outcomes. Patients' needs change over time so that changes in nursing skill mixes may need to be time and case mix sensitive. Staffing models may vary from health region to health region and be influenced by such factors as the health services delivered, patient/client loads and acuity levels.

The material available on competencies provides useful broad guidance, though there is limited information on the current situation and the information on entry to practice competencies needs to be kept in context. Based on a survey of the use of LPNs in other provinces, Alberta reported lower RN:LPN and RPN:LPN ratios in comparison to some other parts of Canada however, no related health outcome measures have been obtained.

The way forward for RHAs may be to continue to introduce additional LPN staffing in specific areas with appropriate evaluation to 'test the water'. Such a process would require full consultation and involvement of nursing and other health care professionals, appropriate in-service training, monitoring and evaluation of nursing-sensitive health outcome. A number of general frameworks and instruments have been suggested which would be helpful in considering how to develop appropriate local level assessment to inform decisions on the role of nursing staff. From the indications obtained in the review, local assessment to inform local decisions, rather than reliance on findings and recommendations in the available literature, would seem to be the way to go.

Overview of the regulation of acupuncture in Alberta

Regional Health Authorities expressed interest in the service of acupuncture in their communities and the evidence supporting its use. As the first stage of this project, the governing bodies of the various practitioners of acupuncture in Alberta were contacted. Information regarding the number of people registered, the conditions they may treat, and the regulations governing their practice is outlined in this document.

Decisions on the status of health technologies

This paper is intended to assist health care decision-makers in Alberta when considering whether to support the use of emerging health technologies. The paper gives an HTA perspective on this issue, considering the definition of experimental technology and whether use of such modalities should or should not be supported.

It provides a review of relevant literature and describes a two round modified Delphi study. The Delphi study was undertaken in the province to obtain opinion from decision-makers on how the status of technologies as experimental or non-experimental might be determined.

Issues deliberated in determining the status of health technologies and whether to support their use are illustrated. Finally, the paper makes suggestions for possible future directions for consideration of emerging technologies in the context of Alberta health care.

The paper defines 'experimental' as meaning that the best level of evidence of efficacy available is weak. Experimental status is also typically associated with use of the technology on relatively small numbers of patients or clients.

'Not adequately validated', is taken to mean that evidence of efficacy, effectiveness or safety is in some respects limited so that substantial uncertainty remains over the performance of the technology in the health system. Use of technologies in this category may have already become widespread.

Results from the Delphi study suggested that use of these simple criteria for defining 'experimental' or 'not adequately validated' technologies can assist the decision-making process. Response obtained from decision makers on criteria for funding decisions indicated an emphasis on levels of benefit, including impact on quality of life or functional status. Cost to the health system, severity of the condition and availability of expertise were seen as less important.

Conclusions from previous assessments related to coverage were categorised as support, conditionally support or do not support. It was of interest that some 'experimental' technologies were recommended for support. Major factors considered in the HTA recommendations were strength of evidence, severity of the condition for which the technology was used, availability of alternative technologies and the

performance of these. Expected caseload and costs of technology were minor factors in the conclusions reached.

Several observations are made to assist decision makers. In determining whether to provide coverage for an emerging technology, decision-makers should consider:

- Whether the technology is still experimental (number of persons who have received the intervention, quality of evidence of safety and efficacy, length of follow up).
- Whether the technology is adequately validated if it is not experimental (quality of evidence of efficacy or effectiveness).
- Relevance to the local health care system and patient population.
- Factors that influence HTA recommendations, including the nature of the disease or condition in question, performance and availability of alternative technologies, expected incremental benefit and availability of adequate competency.
- Other factors, including effects on budgets, potential cost-effectiveness of the technology and equity and access for those who might benefit from its use.

Conditional coverage for a new technology, for example linking reimbursement to collection of additional data, requires active management after the decision has been implemented.

Horizon scanning for health technologies relevant to Alberta

This report documents the results of a pilot project on identification of potentially significant new health technologies. The pilot project was initiated following a request from the Health Ministry for an 'early warning' process to provide advice on technologies that could be expected to impact on Alberta health care. During 1999 and 2000 a total of 72 one page briefs (Techscans) were prepared and distributed to decision makers in Alberta Health and Wellness and RHAs, as well as being included on the AHFMR website.

This paper describes the development and operation of the horizon scanning program, and some strengths and limitations of this approach.

The Techscans were well received by decision makers who indicated that they wished to continue receiving them. Comments from contacts in other countries were all favorable. However, despite these positive features, this experience of initiating an 'early warning' program within a provincial health care system has raised some issues regarding the process of providing such advice for informing health policy. The future of horizon scanning initiatives will depend on the value placed on the provision of timely information and the capacity to use it. These matters were not fully resolved in the pilot

project.

Effective scanning for relevant emerging health technologies requires familiarity with the local and national health care systems, and experience in health technology assessment. There is a need for awareness of the types of technologies that might be of key interest to health care decision makers, and of the kind of information required by them. The Internet news sources that formed the basis for the selection of technologies were not usually sufficiently detailed or accurate for the preparation of the briefs. It is time consuming to obtain further data, for example on the status or availability of the technology. It is particularly difficult to determine the level of diffusion of non-regulated technologies, such as surgical procedures

The pilot project established the feasibility of providing short alerts on emerging health technologies for a provincial health care system. It also suggested the value of this process as a means of expanding the HTA knowledge base. However, the process for identifying the target audiences in government and health care delivery agencies, the methods of transmitting the information to these audiences, and the value of such information to health policy makers needs further consideration.

Also, any horizon scanning process should be fully integrated with an ongoing HTA program. A direction for the future is to increase interchange of information with other agencies involved in horizon scanning as their programs start to mature.

Horizon scanning activities are being taken forward by (CCOHTA). Short summaries, which in part draw on the experience gained at AHFMR in preparing the Techscans, are now available on CCOHTA's website.

Uncomplicated senile cataract surgeries in Alberta

This report provides some statistics for a select Alberta population on cataract surgery rates and potential complications two years following the initial surgery. Descriptive rates are presented for cataract surgeries performed in Alberta between April 1994 to March 1998 on seniors without pre-existing ocular co-morbidities (using a crude definition). Four cohorts are described by the four fiscal years of the initial cataract surgery. The 1994/95 and 1995/96 cohorts were followed for selected complications over a 2 year period following the initial cataract surgery.

One of the leading causes of visual impairment in North America is cataracts. Cataracts have been identified in about 50% of persons between 65 and 74 years of age, and in about 70% of those over the age of 75 years. Cataract surgery with implantation of an intraocular lens (IOL) is a successful intervention for the treatment of uncomplicated senile cataract.

In 1998/99, 16,013 cataract surgeries on 12,443 persons were paid to Alberta ophthalmologists, making it the most common surgical procedure performed in

Alberta. Interest in uncomplicated, senile cataract surgery with IOL implantation came about as a result of an enquiry by the Consumers' Association of Canada (Alberta Chapter) and the Alberta Health Ministry about the safety and effectiveness of the newer foldable IOLs. A comprehensive, systematic assessment of the scientific research to address this inquiry was completed and published June 1999.

There are three main types of IOLs in terms of the materials used for optics: poly methylmethacrylate (PMMA) (rigid), silicone (foldable), and acrylic (foldable). In Canada, PMMA IOLs have been used since the early 1970's, silicone IOLs for approximately ten years, and the first hydrogel (a form of acrylic) IOLs received pre-market clearance about three years ago. The decision on what type of lens to use is usually based on surgeon preference and training. Surveys indicate a trend to increasing use of foldable IOLs.

One of the main limitations of this study is that the selected population and their activity could only be crudely defined in the data source. Furthermore, the use of aggregated, anonymous data prevented the identification of individuals for appropriate follow up assessments.

A study of the impact of 2000-2001 HTA products

The purpose of this study was to develop further sophistication in the understanding and exposition of the impact of the Health Technology Assessment (HTA) Unit's products. Data were collected through a series of open-ended questions during face-to-face interviews with those who requested the assessments. The feedback was then analyzed using a qualitative approach in which common themes were extracted to develop conclusions about the impact of HTA products on decision-making. It was found that evidence presented in HTA products informs decisions of the requesting organization. Factors that have a positive influence on impact include the quality of the report and the reputation and credibility of the HTA Unit. Time of availability of the product can affect the impact of the product. In order for products to have a positive impact, they must be available at the time the decision is being made. Products that present inconclusive evidence have less impact on decision-making and the presence of external barriers (e.g., advocacy action of lobby groups and the momentum of existing programs) may further limit their impact.

Application of an assessment framework to an evolving telemental health program

Evaluation requirements for the Telemental Health Service (TMH) operated by the Alberta Mental Health Board changed as this program evolved from a pilot project to a mature telehealth network. A guideline for assessment of telehealth applications, developed by the HTA Unit has been used by the AMHB in its evaluation of the TMH, and particularly telepsychiatry services.

From a health technology assessment perspective, most attributes referred to in the guideline have been well covered in evaluations of telemental health undertaken by the AMHB. However, there were limitations in regard to assessment of outcomes and cost effectiveness. From the perspective of the AMHB, the assessment guideline has been helpful, though more so in the earlier stages of the TMH than for appraisal of a mature network.

It has not proved possible for the AMHB to obtain all the measures of performance suggested by the guideline, which does not fully reflect local operational conditions.

A variety of assessment activities related to the TMH continue to be undertaken by the AMHB. These have been helpful in local decision making. Constraints on assessment of the mature Telemental Health Service are the complexity of the current network, limited resources for evaluation and routine administrative requirements of decision – makers.

TechNotes

Keratoprosthesis (KPro) for severe bilateral cornea disease: Severe corneal disease or trauma leading to opacification of the cornea is a major cause of blindness globally.

Corneal transplantation, the main rehabilitation procedure for such disorders, has poor prognosis for patients with severe chronic inflammation. KPro, an artificial cornea, is an alternative and may provide the only potential means to restore some visual function.

No controlled clinical trials have been conducted on the efficacy of KPro. The results of three large case series showed that most patients obtained some visual function for a short or long period of time after surgery, depending upon their preoperative diagnosis.

With KPro serious postoperative complications are common. There is insufficient evidence to prove the safety and efficacy of any KPro model.

No practical experience with KPro is available in Alberta or Canada. The procedure is available at several eye centers in the United States.

Efficacy and/or effectiveness of spirometry and forced oscillation technique in the diagnosis of childhood asthma: Asthma in childhood is considered a disorder that is difficult to diagnose because of its heterogeneous presentations and lack of specific symptoms. The use of some diagnostic tests (spirometry and forced oscillation technique (FOT)) have been questioned in terms of their inability to perform accurate and reliable lung function readings in children under 5 years of age. This Technote focused on recent studies (from 1996 to date) that assessed the effectiveness of the aforementioned technologies for first-time asthma diagnosis in children.

The available evidence does not provide information about the comparative accuracy of these technologies in diagnosing asthma. In some cases, the studies had some

methodological disadvantages such as the use of an inappropriate comparative gold standard.

According to expert opinion, spirometry is a well-established and validated measure of airway function and is invaluable as a part of the investigation of lung disease in children as young as one year of age. The efficacy of FOT is still in question because there is a relative lack of experience with its use, but it seems to be a promising alternative. Much of the work in describing the normal range of results for children and the patterns seen in different diseases have been conducted in Eastern Canada.

Prosorba® treatment for rheumatoid arthritis: The Alberta Expert Committee on Drug Evaluation and Therapeutics required information on the current status of the use of the Prosorba® treatment for rheumatoid arthritis (RA). This project was undertaken in collaboration with the CCOHTA.

The Prosorba® treatment has been offered as a new non-drug therapy to reduce symptoms in patients with moderate to severe active RA who failed to respond to multiple treatments with disease-modifying antirheumatic drugs (DMARDs) or who are intolerant to these drugs. The treatment is an extracorporeal immunoadsorption treatment developed for the purpose of selectively removing immunoglobulin G (IgG) and IgG-containing circulating immune complexes (CIC) from the plasma of patients in whom these substances are associated with their immune diseases.

Good clinical evidence, from one well designed, short-term randomized controlled trial, suggests that the Prosorba® treatment is safe. The study concludes that the Prosorba® treatment has potential in alleviating the symptoms of severe active RA in some adults with long-standing disease who failed to respond to DMARDs and remain in need of therapeutic options. The response to treatment is usually delayed and treatment-related joint flares are common. Most adverse events are associated with the apheresis procedure.

The TechNote concludes that its place in regards to other concurrent treatments is still unclear. Questions remain on its mode of action, how long the treatment remains efficacious, its effect in less severely afflicted patients, and its impact on the patients' quality of life.

Cyclosporine for pure red cell aplasia: Pure red cell aplasia (PRCA) is a rare and pathogenetically heterogeneous, haematological disorder. A wide variety of immunosuppressive therapies including Cyclosporine (CyA) have been proposed.

Recent scientific evidence published to date is based primarily on findings from case series. The results from these studies indicate that CyA is a promising and effective second-line treatment for acquired, chronic PRCA. Further studies of higher methodological quality are needed to define the place of CyA as a first-line of therapy in patients with acquired chronic PRCA.

Cyclosporine for aplastic anemia: Allogeneic bone marrow transplantation (BMT) from an HLA-matched sibling donor is the therapy of choice for aplastic anemia (AA) but is limited by lethal treatment-related toxicity and by the availability of sibling donors.

Since the early 1980s, CyA has been used as an alternative to BMT, alone or in combination with other immunosuppressive agents in the management of AA patients who do not have the option of BMT.

Evidence from four prospective randomized multicenter studies indicated that, compared to the standard treatment with antithymocyte globulin (ATG), treatment with CyA alone as first-line therapy for patients with severe AA showed comparable response rates at 3 months. The listed advantages of using CyA compared to ATG were that it can be administered on an outpatient basis, it is less expensive, more readily available and less toxic.

The combination of CyA and ATG as first-line therapy was superior to single-drug therapy in terms of response rates, but long-term survival rates remained similar.

Addition of recombinant human granulocyte colony-stimulating factor (rhG-CSF) to CyA plus ATG regimen for children with AA did not show better results than treatment without rhG-CSF.

Profore compression bandage treatment of venous leg ulcers: This Technote was prepared in response to a request by the Capital Health Authority (CHA) to determine the clinical and cost effectiveness of the Profore compression bandage in the treatment of venous leg ulcers in the frail elderly. To date, limited research has suggested that Profore is as effective as existing four-layer compression bandage systems in relation to healing rates for patients with venous leg ulcers uncomplicated by arterial disease. The scarcity of randomized controlled trials in the evaluation of this four-layer bandage system highlights the need for ongoing rigorous research before any definitive conclusions can be made. Although initial findings regarding cost effectiveness of Profore appear encouraging, studies presenting an evaluation of the cost effectiveness of Profore are problematic and must be viewed with caution given their small sample sizes, comparisons between varied national health care systems, brief descriptions of treatment details, generalized analysis combining treatment therapies and conclusions drawn from analyses based upon estimate models. Cost analysis involves many complexities beyond just material costs and consideration must be given to factors such as time to healing, healing rates, and nursing costs involving home visits and follow-up. Ongoing evaluation of this four-layer bandage system is warranted to further differentiate its cost effectiveness in relation to other high compression bandages.

Metal-on-metal hip resurfacing for young, active adults with degenerative hip disease: This technote has been produced in response to a request for information from the Out-of-Country Health Services Committee on the current status of the use of the metal-on-

metal total hip resurfacing surgery in young, active adults (≤ 65 years of age) with degenerative hip disease. The surveyed evidence suggests that metal-on-metal hip resurfacing may be a viable and bone-conserving option for adults with degenerative hip disease who would otherwise receive and are likely to outlive conventional THR. Its use may be particularly beneficial in younger (≤ 65 years) and/or more active adults who face the possibility of multiple revision procedures during their lifetime and for whom a lower degree of wear (of the metal-on-metal bearing) is required. In this category of patients, it appears that metal-on-metal hip resurfacing is a promising interim procedure, which aims to buy time before primary THR and potentially prevent or reduce the need for revision surgery. Patient selection is important, as good bone stock is required.

The metal-on-metal hip resurfacing is an evolving procedure. Although it is not a new concept, there are still deficiencies in the evidence of its clinical performance in the long-term. The available published results (based on poor level of evidence) suggest that it works very well in younger, more active adults with degenerative hip disease in the short- to medium-term (less than 10 years), and compares favorably with conventional THR in terms of reduced revision rates and post-surgery complication rates. However, long-term outcomes resulting from follow-up of each implant design are needed to reliably confirm these results and establish the metal-on-metal hip resurfacing as an alternative to conventional THR.

Potential candidates for metal-on-metal hip resurfacing should be made aware of the lack of data on long-term safety and efficacy of the implants currently in use. As well, it is unknown how metal-on-metal hip resurfacing as a primary procedure will affect the effectiveness of secondary surgical procedures. The metal-on-metal hip resurfacing is being used with increasing frequency in Europe, Australia, and the United States. Currently the procedure is not licensed in Canada.

Surgical treatment for chronic venous insufficiency: This response addressed a request from the Out-of-Country Health Services Committee. The objective of this Technote is to inform on and to describe the current evidence on the long-term efficacy/effectiveness of surgical treatments for chronic venous insufficiency, particularly vein transposition surgery and cross femoral bypass vein surgery. The conclusions arrived at were:

- Most of the available evidence on the efficacy and effectiveness of vein transposition and bypass procedures for CVI seems to be based on expert opinion and case series studies. Therefore, it is not possible to determine the proper place of each therapeutic modality in the management of CVI.
- There is no available evidence of high quality (from RCTs and systematic reviews) to provide an answer to the questions about the efficacy/effectiveness of vein

transposition surgery and cross femoral bypass vein surgery and the superiority of one surgical option over another.

There is a need for randomised clinical trials with long-term follow up to compare existing surgical techniques for all categories of CVI.

International/Joint Reports

Assessments of telemedicine applications - an update, September 2001

This report brings together details of an update to a systematic review of the telemedicine evaluation literature that was undertaken by Finnish Office for Health Technology Assessment (FinOHTA) and AHFMR on behalf of the International Network of Agencies for Health Technology Assessment (INAHTA) and published in 1999. The present review is based on results of further literature searches undertaken between February and December 2000 and covers studies published since the earlier report was prepared. In summary:

- The review identified 38 scientifically credible studies that included comparison with a non-telemedicine alternative and which reported administrative changes, patient outcomes or results of economic assessment.
- Nine of the studies were considered to be of good quality. Only some of these corresponded to the nine papers that described work based on randomized controlled trials. The quality of most cost and economic analyses was relatively poor.
- Nineteen of the studies concluded that telemedicine had advantages over the alternative approach, 16 also drew attention to some negative aspects or were unclear whether telemedicine had advantages and three found that the alternative approach had advantages over telemedicine.
- For several applications, savings and sometimes clinical benefit were obtained through avoidance of travel and associated delays. The home care studies showed convincing evidence of benefit, while those on teledermatology indicated that there were cost disadvantages to health care providers, though not to patients.
- Twenty three of the studies appeared to have potential to influence future decisions on the telemedicine application under consideration. However, a number of these had methodological limitations.

The overall findings are similar to those of a previous review undertaken by FinOHTA and AHFMR on behalf of INAHTA. Useful data are emerging on some telemedicine applications, but good quality studies are still scarce and generalisability of most assessment findings may be limited.

Health Technology Assessment on the Net: a guide to Internet sources of information (ongoing project), most recent version May 2001

An updated version of the health technology assessment guide to the net was prepared. This guide focuses on Internet sites, particularly those that may be useful for people involved in HTA research in Canada, but health technology assessments also incorporate data from other sources. The electronic version of the guide is particularly helpful to researchers as it contains the URL addresses for the sites identified in the text. Since some sites are no longer active the checklist is updated regularly to ensure its accuracy.

EXTERNAL PUBLICATIONS AND PRESENTATIONS

A number of journal articles from Unit members were published during the year. Presentations were made at several scientific meetings. Details are given in Appendix B.

SUMMARY OF PROGRAM

The HTA program has been in operation at the Foundation since the start of 1996. Patterns of assessment are now well established and consistent with international best practice in health technology assessment. Appendix E provides a summary of the historical activities by the Unit since it was established by type of publication. A wide variety of technologies have been assessed, with the Unit's products providing information for decision makers in the province. The program has defined mechanisms and opportunities for HTA in Alberta, giving a basis for future work in this area.

APPENDICES

APPENDIX A: PERSONS ASSOCIATED WITH THE HTA PROGRAM

HTA Unit

Mr. Don Juzwishin, Director, Health Technology Assessment

Ms. Christa Harstall, Assistant Director

Ms. Paula Corabian, Research Associate

Dr. Bing Guo, Research Associate

Dr. David Hailey, Senior Advisor, Health Technology Assessment

Ms. Wendy McIndoo, Administrative Assistant

Short term placements

Ms. Samantha Bowker (until April 2001)

Ms. Melina Dharma-Wardene (until September 2001)

Dr. Laurie Brooks (until August 2001)

Ms. Maria Ospina

AHFMR Librarian

Ms. Liza Chan

Ms. Leigh-Ann Topfer (CCOHTA)

External collaborators

Ms. Leanne Dekker, Capital Health Authority

Dr. Devidas Menon, Institute of Health Economics

Ms. Kathleen Ness, Capital Health Authority

Ms. Wendy Schneider, Health Services Associates Ltd.

Ms. Patricia Leggett Tait, Simon Fraser Health Region, BC

Dr. Ellen Toth, University of Alberta

Dr. Arto Ohinmaa, Oulu University/U of A

Dr Risto Roine, FinOHTA

Dr. Douglas Urness, Alberta Mental Health Board

Ms Sharlene Stayberg, Alberta Mental Health Board

Mr Tim Bulger, Alberta Mental Health Board

Mr. Robert Lee, Health Technology Implementation Unit

Dr. Cam Waddell, Calgary Health Region

Dr. Lloyd Sutherland, University of Calgary

Dr. Philip Jacobs, University of Alberta

APPENDIX B: PUBLICATIONS AND PRESENTATIONS, 2001-02

Health Technology Assessment – Series A:

- Corabian P. *Accuracy and reliability of using computerized interpretation of electrocardiograms for routine examinations*, January 2002
- Guo B, Harstall C. *Efficacy of suicide prevention programs for children and youth*, January 2002

Health Technology Initiatives

- Juzwishin D, Schneider WL. *AHFMR Screening Procedure for Use when Considering the Implementation of Health Technology (Part 1)*, April 2001
- Mitton C, Donaldson C. *Conference summary: priority setting in health care: from research to practice*, January 2002

Technotes

- Keratoprosthesis for the treatment of severe bilateral cornea disease, *April 2001*
- Cyclosporine for aplastic anemia, *November 2001*
- Cyclosporine for pure red cell aplasia, *November 2001*
- ProSORBA treatment for rheumatoid arthritis, *November 2001*
- Profore compression bandage treatment of venous leg ulcers, *December 2001*
- Efficacy and/or effectiveness of spirometry and forced oscillation technique in the diagnosis of childhood asthma, *January 2002*
- Metal-on-metal hip resurfacing for young, active adults with degenerative hip disease, *March 2002*
- Surgical treatment for chronic venous insufficiency, *March 2002*

Information papers

- Decisions on the status of health technologies, *April 2001*
- Overview of the regulation of acupuncture in Alberta, *May 2001*
- Horizon scanning for health technologies relevant to Alberta, *May 2001*
- Accomplishments of the Health Technology Assessment Unit – 1995 – 2000, *May 2001*
- Nursing skill mix and health care outcomes, *December 2001*

- Uncomplicated senile cataract surgeries in Alberta, *December 2001*
- A study of the impact of 2000-2001 HTA products, *January 2002*
- Application of an assessment framework to an evolving telemental health program, *February 2002*

Newsletter

Tech-Wise - Issue No. 17, April 2001

Issue No. 18, August 2001

Collaborative Reports

- Chan L, Topfer LA. *Health Technology Assessment on the Net: a guide to Internet sources of information (on going project)*. June 2001.
- Hailey D, Roine R, Ohinmaa A. *Assessments of telemedicine applications – an update*. September 2001.

External journal publications

- Hailey D, Roine R, Ohinmaa A. Systematic review of evidence for the benefits of telemedicine. *Journal of Telemedicine and Telecare*, 2002;8(Suppl 1):S1-S30.
- Simpson J, Doze S, Urness D, Hailey D, Jacobs P. Telepsychiatry as a routine service – the perspective of the patient. *Journal of Telemedicine and Telecare*, 2001;7:155-160
- Ohinmaa A, Hailey D, Roine R. Elements for assessment of telemedicine applications. *International Journal of Technology Assessment in Health Care*, 2001;17(2):190-202
- Hailey D. Some successes and limitations with telehealth in Canada. *Journal of Telemedicine and Telecare* 2001;7(Suppl 2): 73-75.
- Harstall C. Comparison of monofocal intraocular lenses for uncomplicated age-related cataract. *Canadian Journal of Ophthalmology*, 2001;36(9):Discussion 132-2.
- Corabian P, Jacobs P, Downey W, Osei W, Johnson JA. The cost of diabetes complications in Saskatchewan, 1991. *Canadian Journal of Public Health*, 2001.
- Roine R, Ohinmaa O, Hailey D. Assessing telemedicine: a systematic review of the literature. *Canadian Medical Association Journal*, 2001;165(6):765-771.
- Hailey D, Topfer LA, Wills F. Providing information on emerging health technologies to provincial decision makers: a pilot project. *Health Policy*, 2001;58:15-26.

- Hailey D. The WTO and privatisation of health services. *Health Technology Assessment* 2001; 13 (1): 5,12

External presentations

The following presentations have been made during this period:

- Juzwishin, D. *Research and decision-makers – do we speak one language?* SEARCH Network Workshop, Calgary, Alberta, April 21, 2001 (role play).
- Juzwishin, D. Harstall, C. *Disseminating Evidence*. 6th Annual Health Research Methods 2001, Stretching the Boundaries of Health Research, Calgary, Alberta, April 20, 2001 (workshop).
- Corabian P. *Patient education as a management intervention for adult type 2 diabetes*. Poster presentation at CDA/CSEM Conference and Annual Meeting, Edmonton, Alberta, May, 2001.
- Juzwishin D. *Enabling the Use of Health Technology Assessment in Regional Health Authorities*, Workshop on Assessing Health Technologies in Newfoundland, Canadian Coordinating Office for Health Technology Assessment, St Johns, May 2001.
- Juzwishin D. *Enabling the Use of Health Technology Assessment in Regional Health Boards*, Workshop on Assessing Health Technologies in Prince Edward Island, Canadian Coordinating Office for Health Technology Assessment, Charlottown, May 2001.
- Harstall C, Hayward S. *Reading research studies: deciding what to read and when to apply results*. ACHRN workshop for Keeweenaw Health Region, Morinville, Alberta, June 2001.
- Harstall C. *Alberta Mammography Screening Guideline*, 17th Annual meeting, International Society for Technology Assessment in Health Care, Philadelphia, June 2001, oral presentation.
- Hailey D, Harstall C. *Status of Health Technologies and Coverage for Their Use*, 17th Annual Meeting International Society for Technology Assessment in Health Care, Philadelphia, June 2001, oral presentation.
- Hailey D, Erlichman M. *Opportunities and Barriers to International Collaboration: The INAHTA Experience*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, oral presentation.
- Hailey D, Jacobs P. *Health technology assessment of a routine telepsychiatry service*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, poster presentation.

- Hailey D, Ohinmaa A, Roine R. *Appraisal of the status of telemedicine: a systematic review*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, poster presentation.
- Harstall C, Schneider W. *Approval for Funding Foldable IOLs for Cataracts by Alberta's Health Ministry*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, poster presentation.
- Chan L, Topfer, LA. *A Guide to Internet Sources of Health Technology Assessment Information*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, tutorial presentation.
- Gibis B, Grenz S, Harstall C, Juzwishin, D. *Photodynamic Therapy (PDT) for Age-Related Macular Degeneration: A Breakthrough Technology?* 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, poster presentation.
- Rondeau K, Hailey D. *A framework for assessing the effectiveness of Health Technology Assessment Units*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, poster presentation.
- Schneider WL. *Laparoscopic Adjustable Gastric Banding for Morbid Obesity*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, poster presentation.
- Schneider WL, Topfer LA, Stafinski T. *Measuring Impact: Determining Baseline Utilization. A Survey of Low Level Laser Use in Wound Care*. 17th International Society for Technology Assessment in Health Care, Philadelphia, June 2001, poster presentation.
- Hailey D. *Telehealth outcomes – what is available and who wants to know?* Seminar, Health Telematics Unit, University of Calgary, , November 2001.
- Juzwishin D. *A primer to health technology assessment in Alberta*. SEARCH III, Edmonton, Alberta, November 2001.

External web publications

- INAHTA. *A checklist for health technology assessment reports*. International Network of Agencies for Health Technology Assessment. Available at <http://inahta.org>, 2001

APPENDIX C: REFEREES/COMMENTATORS

The following persons acted as referees or provided comments during preparation of the AHFMR reports completed in 2000-01.

- Ms. Debra Allen, Alberta Association of Registered Nurses, Edmonton, Alberta
- Dr. Steven Aung, Certificate Program in Medical Acupuncture, University of Alberta, Edmonton, Alberta
- Dr. Len Baron, Alberta Health and Wellness, Edmonton, Alberta
- Dr. Roman Bayrock, Acupuncture-TCM Society of Alberta, Edmonton, Alberta
- Dr. Israel Belenkie, Foothills Hospital, Calgary, Alberta
- Dr. Lorne Bellan, Misericordia Health Centre, Winnipeg, Manitoba
- Ms. Kim Bowie, Acupuncture Foundation of Canada Institute, Edmonton, Alberta
- Dr. Hugh Campbell, Alberta Dental Association, Edmonton, Alberta
- Mr. Dennis Chu, Capital Health Authority, Edmonton, Alberta
- Mr. Tyler Cleveland, Calgary Health Region, Calgary, Alberta
- Ms. Heather Crawford, Health Sciences Centre, Winnipeg, Manitoba
- Ms. Judy Dahl, Registered Psychiatric Nurses Association of Alberta, Edmonton, Alberta
- Dr. Ronald Dyck, Alberta Innovation and Science, Edmonton, Alberta
- Dr. Leona (Lee) L. Eggert, Reconnecting Youth Prevention Research Program, Redmond, WA
- Dr. Bernhard, Gibis, National Association of Statutory Health Insurance Physicians, Cologne, Germany
- Dr. Phyllis Giovannetti, Faculty of Nursing, University of Alberta, Edmonton, Alberta
- Dr. Clarence A. Guenter, University of Calgary, Calgary, Alberta

- Dr. Arminée Kazanjian, British Columbia Office of Health Technology Assessment, Vancouver, BC
- Dr. Paul S. Links, Psychiatry, University of Toronto, Toronto, Ontario
- Ms. Barbara Lowe, Registered Psychiatric Nurses Association of Alberta, Edmonton, Alberta
- Dr. Sue Ludwig, Alberta Health and Wellness, Edmonton, Alberta
- Dr. Ian MacDonald, University of Alberta, Edmonton, Alberta
- Dr. Harriet MacMillan, Canadian Centre for Studies of Children at Risk, Departments of Psychiatry and Behavioural Neurosciences, and Pediatrics, Hamilton, Ontario
- Dr. Kevin Malone, Department of Adult Psychiatry, University College Dublin, Dublin, Ireland
- Dr. J. John Mann, Department of Neuroscience, New York State Psychiatric Institute and the Department of Psychiatry, Columbia Presbyterian Medical Center, New York, NY
- Ms. Rita McGregor, College of Licensed Practical Nurses of Alberta, Edmonton, Alberta
- Ms. Cindy McLean, Alberta Association of Occupational Therapists, Edmonton, Alberta
- Dr. Lorne B. Mitchell, Foothills Hospital, Calgary, Alberta
- Dr. Patricia Marck, Alberta Association of Registered Nurses, Edmonton, Alberta
- Dr. Stephen C. Newman, Department of Public Health Sciences, University of Alberta, Edmonton, Alberta
- Dr. Michael Nowazek, Alberta Association of Naturopathic Practitioners, Edmonton, Alberta
- Ms. Debbie Phillipchuk, Alberta Association of Registered Nurses, Edmonton, Alberta
- Dr. Jenny Ploeg, School of Nursing, McMaster University, Hamilton, Ontario

- Mr. Mark Raedschelders, Grant MacEwan College, Edmonton, Alberta
- Dr. Pentti M. Rautaharju, Wake Forest University School of Medicine, Winston-Salem, NC
- Ms. June Rock, Alberta Association of Registered Nurses, Edmonton, Alberta
- Dr. Renae Rodgers, College of Chiropractors of Alberta, Edmonton, Alberta
- Dr. Ken Romanchuk, Saskatoon City Hospital, Saskatoon, Saskatchewan
- Dr. Gus Thompson, Department of Public Health Sciences, University of Alberta, Alberta
- Ms. Susan Turner, College of Physical Therapists of Alberta, Edmonton, Alberta
- Dr. Bryan Ward, College of Physicians and Surgeons of Alberta, Edmonton, Alberta
- Dr. Jennifer White, Suicide Prevention Information & Resource Center (SPIRC), Faculty of Medicine, University of British Columbia, Vancouver,
- Ms. Nikki Winters, Calgary Health Region, Calgary,

APPENDIX D: INFORMATION REQUESTS IN 2001-2002

The following tables illustrate all information requests received by the HTA Unit during 2000-2001. Table 2 lists the assessments by source – topic – and category of report

Table 2: Assessments by source of request, topic and category in 2001-2002

Source	Topic	Category
Alberta Health and Wellness	Decisions on the status of health technologies	Information Paper
	Horizon scanning for health technologies relevant to Alberta	Information Paper
	Uncomplicated senile cataract surgeries in Alberta	Information Paper
	Keratoprosthesis (kPro) for severe bilateral cornea disease	Technote
	Prosorba® treatment for rheumatoid arthritis	Technote
	Cyclosporine for pure red cell aplasia	Technote
	Cyclosporine for aplastic anemia	Technote
	Metal-on-metal hip resurfacing for young, active adults with degenerative hip disease	Technote
Alberta Mental Health Board	Surgical treatment for chronic venous insufficiency	Technote
	Efficacy of suicide prevention programs for children and youth	Report A
Alberta Mental Health Board	Application of an assessment framework to an evolving telemental health program	Information Paper
Calgary Health Region	Nursing skill mix and health care outcomes	Information Paper
Capital Health Authority	Profore compression bandage treatment of venous leg ulcers	Technote
Chinook Health Region	Efficacy and/or effectiveness of spirometry and forced oscillation technique in the diagnosis of childhood asthma	Technote
Collaborative Reports	Assessments of telemedicine applications – an update (INAHTA)	Report A
	Health technology assessment on the net: a guide to internet sources of information (CCOHTA)	Information Paper
Provincial Health Authorities of Alberta	Accuracy and reliability of using computerized interpretation of electrocardiograms for routine examinations	Report A

Table 2: Assessments by source of request and type responded to in 2001-2002 (cont'd)

Source	Topic	Category
Regional Health Authorities	Overview of the regulation of acupuncture in Alberta	Information Paper
AHFMR In-House	A study of the impact of 2000-2001 HTA products Accomplishments of the HTA Unit 1995-2000 AHFMR Screening Procedure for Use when Considering the Implementation of Health Technology (Part 1) Conference summary: priority setting in health care: from research to practice	Information Paper Information Report Initiative Report Initiative Report

Table 3: Information requests by source, topic and category

For information requests the level of the response in terms of time spent on the request is indicated in the final column. Category A = > 1 hour / < ½ day; B = > ½ day / < 1 day; C = > 1 day / < 3 days; and D = > 3 days / < 7 days.

Source	Topic	Category
Alberta Health and Wellness	Chelation therapy	A
	Effective treatment of +65 community acquired pneumonia in hospital and home settings?	D
	Medical Device License	A
	Nanotechnology	A
	The reuse of single use devices and supplies	A
	Islet cell transplantation	A
	Botulinum Toxin treatment for stroke, brain injury, and multiple sclerosis	D
	Cryosurgery for prostate cancer	D
	Laparoscopic ovarian transposition for young women with cancers	D
	Transposition of submandibular gland in association with neck dissection	D
	Stem cell transplantation for older patients with acute myelogenous leukemia (AML)	D
	Effectiveness of Physical Therapy Services	D

Table 3: Information requests by source, topic and category (cont'd)

Source	Topic	Category
Regional Health Authorities	Effectiveness of alternative therapies (acupuncture) – Aspen Regional Health Authority	B
	Effectiveness of the Harmonic Scalpel – Aspen Regional Health Authority	D
	Effectiveness of telephone initiated advice – Calgary Health Authority	C
	Stress incontinence – Calgary Health Authority	A
	Brachystents – Capital Health Region	B
	Effective treatment of + 65 community acquired pneumonia in hospital and home settings? – Capital Health Region	A
	Health Technology Assessment Reviews – Capital Health Region	A
	Integration of rehabilitation services (PT,OT, speech) from an administrative sense in health systems – Capital Health Region	A
	LPN/RN draft report – Capital Health Region	A
	Artificial anal sphincter costs and benefits – Capital Health Region	C
	Multiple chemical sensitivity document – Capital Health Region	A
	Stent/target brachytherapy – Capital Health Region	B
	LPN/RN report – Capital Health Region	A
	Effectiveness of ECG Stress Training – Chinook Health Region	D
	Remicide – Chinook Health Region	A
	Benefit or value to be derived from physicians who staff emergency department of hospitals having training in ACLS (advanced cardiac life support) - Crossroads Regional Health Authority	C
	Diagnosis of compartment syndrome - - Crossroads Regional Health Authority	D
	Effective delivery strategies for home care - - Crossroads Regional Health Authority	D
	Effectiveness of the Holmium Laser – David Thompson Health Region	D

Table 3: Information requests by source, topic and category (cont'd)

Source	Topic	Category
Regional Health Authorities (cont'd)	Effectiveness of the Harmonic Scalpel – East Central Health	D
	Effectiveness of information software systems – Mistahia Health Region	D
	Use of Propofol as an outpatient sedative – Mistahia Health Region	D
	Propofol – Mistahia Health Region	A
	The SEARCH Light Magnet Hospitals – Northwestern Health Services Region	B
	Effectiveness of alternative therapies (acupuncture) – Palliser Health Authority	B
	Sentinel Lymph Node Biopsy – Palliser Health Authority	B
	Group vs. individual speech therapy- Palliser Health Authority	B
	Diagnosis of compartment syndrome – Peace Health Region	D
	Remicide – Peace Health Region	A
	Diagnosis of compartment syndrome – Peace Health Region	D
	Effective delivery strategies for home care – Regional Health Authority #5	D
	Cost-effectiveness of private versus public laboratories	D
	Digital Radiology	A
	Effective methods of facilitating public involvement in RHA Governance	D
	Effectiveness of Group vs. Classroom Intervention of Speech Therapy	D
	Effectiveness of laparoscopic adjustable gastric banding and effectiveness of gastroplasty	D
	Effectiveness of Mobile Mammography Screening (2 requests)	D
	Effectiveness of teleradiology ultrasound and effectiveness of telehealth	D
	Sentinel node biopsy	D
	Sentinel node biopsy in medical imaging vs. biopsy in OR	D

Table 3: Information requests by source, topic and category (cont'd)

Source	Topic	Category
Alberta Children's Services	IBI for School Aged Children update from British Columbia contacts – Alberta Children's Services	A
Agency for Healthcare Research and Quality	Cochrane review on breast feeding	A
College of Physical Therapists of Alberta	Restricted activities for College	A
Manitoba Health	Hyperbaric oxygen and chronic non-healing wounds	A
	Patient Diabetes Education in the Management of Type 2 Diabetes	A
MCHECC (BC)	Methodologies used in the telepsychiatry report	A
Medizinische Hochschule Hannover	Information on technote format for report on short, rapid or brief assessments	A
Mowara Househ, University of Victoria (grad. student)	Indicator Study	A
New Zealand HTA	Pepper Spray	A
Philips Medical Systems - Paivi Paloviita-Wendt (Finland)	Brachytherapy for prostate cancer (2 requests)	A
Prince Edward Island Health	SLP services	A
Saskatchewan Health	Ambulatory Care Criteria	A
	Telehealth Report	B
United State Food & Drug Administration	Medical Device Approvals	A
University of Alberta	SLICK Project	A
VA Technology Assessment Program	INAHTA North American Collaborators (NAC) Information Survey	A
Health Care Professionals	Graduated Compression Stockings - Dr. Karen Franken, University Hospital Rotterdam, Netherlands	A
	Locked in Syndrome	A
	Emergency Department Service Pressures Reports	A
	Magnet Hospitals	B
	Remicide	A

Table 3: Information requests by source, topic and category (cont'd)

Source	Topic	Category
Other Organizations	Lung transplantation and Simultaneous Pancreas and Kidney transplantation – Evelyn Reiter at FHSQ	B
	Proton therapy – Anne-Florence Fay, SAP, Paris	A
	INAHTA survey for prostate cancer screening (Unimed)	A
	Profore treatment for traditional venous ulcers - Bruce Wilson, Writer & Editor (Science & Medicine), Montreal Quebec	A
Individuals	Information from technotes on ethical issues and/or side effects of technology (Germany)	B
	Digital response patient monitor	A
	Effectiveness of autologous chondrocyte transplantation for hyaline cartilage defects in knees: a rapid and system review (NHS report)	A
	Assessment and wound care management	A
	Complete blood count tests prior to surgery	A
	Use of health indicators	A
	Gamma knife facility in Canada	A
	INAHTA Survey for Prostate Cancer Screening	A
	Interface pressure management (UK)	A
	Phalloplasty in female - male transsexuals	A
	Simple electropneumatic closed system (HTA1)	A
	Stem cell transplantation	A
	Vaginoplasty in male-female transsexuals and criteria for sex reassignment surgery	A
	Health Technology Assessment on the Net:: a guide to Internet sources of information (2 requests)	A
	Spinal cord amputation	A

APPENDIX E: HISTORIAL ACTIVITY BY TYPE OF PUBLICATIONS - 1996 - 2002¹

Table 4: Historical activity by type of publications 1996 to 2002

Product	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	TOTAL
HTA report	5	7	6	7	6	2	33
Technote	8	5	6	2	5	8	34
Info paper	3	3	3	2	1	8	20
Techscan	-	-	-	45	27	-	72
Joint report	4	-	-	4	4	2	14
Info request	-	74	89	88	75	92	418
HTA Initiative	-	-	-	1	2	2	5
Newsletter	2	1	2	5	3	2	15

¹ Based on fiscal year April 1 to March 31

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